

Sharing the passion for Information Literacy and lifelong learning: Partnerships between school and tertiary libraries

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Felix is also an active member of ALIA

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Abstract

The University of Tasmania (UTAS) has an Information Literacy policy that acknowledges leadership from the library and a shared responsibility for developing students' Information Literacy between the Library, the UTAS Centre for Advancement of Learning and Teaching (CALT) and the Faculties.

Librarians collaborate with academics from faculties and CALT to embed Information Literacy into the students' learning. While embedded programs have been implemented in units and courses across all faculties, we are still not reaching all students.

To assist this collaboration to produce information literate students, the Library is developing a framework of learning outcomes, teaching and learning activities and assessment exemplars as well as an online learning resource that can be contextualised to specific disciplines. The Framework is based on a continuum of Information Literacy learning outcomes from first grade to graduation, developed by Adelaide University academics, John Willison and Kerry O'Regan.

While the framework aims primarily to support current UTAS students' skills, we also aim to use the framework to work with senior secondary schools to introduce students to the University environment and ease the transition between senior secondary to University.

The paper presents the framework and our progress with its implementation and uses this groundwork to explore with conference participants how the framework can be a basis for partnerships between schools and tertiary libraries for the benefit of our students.

Introduction

The *Australian and New Zealand Information Literacy Framework* (ANZIL Framework) (Bundy 2004) provides a theoretical and practical basis for Information Literacy in Australian and New Zealand Universities. University of Adelaide academics Willison and O'Regan have extended the application of the ANZIL Framework by developing an Information Literacy Continuum (The Continuum), by articulating levels of Information Literacy from first grade to graduation.

Based on the ANZIL Framework and The Continuum, the University of Tasmania (UTAS) Library has produced our own Framework (UTAS Framework) of learning outcomes (see Appendix), the first stage of a multi-dimensional framework that will guide the development of learning activities and assessment from elementary to advanced skills levels. The Framework builds on and extends the University of Tasmania Information Literacy Policy (2004). The policy defines Information Literacy, commits the University to developing graduates who are information literate and articulates the shared responsibility for this between the Library, Faculty and the Centre for Advancement of Learning and Teaching.

The Policy recognises that collaboration is essential to achieving Information Literacy graduates. The Framework provides a central tool for collaboration.

In this paper we discuss how the UTAS Framework has been fundamental to the development of an online resource at an elementary level and how we have been exploring the Framework as a way of determining the development of proficient and advanced skills. We then discuss how the Framework can assist in exploring school to university transition activities in a pilot Information Literacy program for senior secondary economics students from the Hutchins School.

Collaboration is the underlying theme of this paper, dimensions of collaboration being partnerships between academic library and faculties, partnerships between school librarians and teachers, partnerships between school and academic librarians and partnerships between educational sectors.

We hope that our experience will assist in engendering further collaboration between senior secondary and higher education sectors.

Transition: vertical integration within and across sectors

Considerable efforts have been made to develop programs that ease transition for students between school and higher education sectors. In 1987 there was a cry in an apparent wilderness for “established, articulated standards for the preparation of college-bound students; and ... requirement for proficiency in research and information skills in either the high school curriculum or the college admission process” (Altan 1987).

Burhanna and Jensen provide an overview of innovative high school to college collaborations and initiatives at Kent State University Library (Burhanna & Jensen 2006). They discuss essential ingredients and emphasise agreed Standards as providing opportunities for collaboration between higher education and school librarians. The American Association of School Librarians and the American College and Research Library standards provide the standards that “align well” and “demonstrate that academic and school libraries have very similar instructional objectives”. As well as collaboration between librarians, they highlight the importance of both school and academic librarians collaborating with teaching staff in their respective institutions.

In Australia there are some models of University Library outreach to schools, such as the University of Queensland Library program that provides online access for partner institutions to university-level resources and provides tours and training for school groups (Blumson, Fleming & Turnbull 2002). There are also university-based programs for incoming students that address the transition of students from school to university. Robertson describes a University of Melbourne-based transition program for incoming students and promotes the use of Standards for academics and librarians to “engage, nurture and stimulate the diverse student cohort in becoming confident and competent users of information and communication technologies” (Robertson 2004)

Peacock, in the Queensland University of Technology Information Literacy Framework & Syllabus (Peacock 2002), develops a “proficiency map” as a way of describing an incremental framework for Information Literacy skills. The document also explicitly states that the intended audience is for industry, schools, and community.

In Australia, the ANZIIL Framework's Standards, and the theoretical framework for their implementation, provide the basis for a common understanding and appreciation of what is involved in teaching these skills. The Standards have been adopted by most Australian Universities. There are parallels between the ANZIL Framework and the Australian School Library Associations' (ASLA) learning matrix for student learning (Australian School Library Association & Australian Library and Information Association 2001), which, as in America, indicates that the school and university sectors have similar objectives. However, in discussing The Continuum, Willison and O'Regan point out the lack of a "blue print or roadmap" for transition between sectors. The continuum is intended as a tool for collaboration between librarians and academics and teacher librarians and teachers and between academics. The Continuum expands the work of the ANZIIL Standards and simplifies the ALSA Learning matrix, reinforcing that Information Literacy development "is not a linear and once and for all" learning activity (2005).

The UTAS Framework

The UTAS Information Literacy Policy outlines a responsibility for Information Literacy that is shared between Librarians, Academics, Learning Developers, Associate Deans, Teaching and Learning and Students (University of Tasmania 2004).

The policy reflects the four fundamental aims of the Library's activity to embed Information Literacy by explicitly stating Information Literacy outcomes in unit and course outlines, adopting learning and teaching strategies to develop these skills, assessing these skills and developing the skills incrementally throughout the degree (See Lupton 2002). We have made significant progress in achieving the first three aims.

We have also been able to show that this collaboration on embedding these skills leads to effective learning by students. (Dearden et al. 2003; Dearden et al. 2004; Jones & Barmuta 2003; Jones et al. 2005). In the Faculty of Science, Engineering and Technology the School of Zoology and Science Library have developed a model for incremental information skills development across the Zoology major. While the Zoology major provides a proven model for incrementally developing students' Information Literacy, we are still to make this a practice across the University. We are hoping that the UTAS Framework will assist in achieving this, as yet, elusive goal.

The Framework adopts steps 3 to 5 of The Continuum. The Framework articulates learning outcomes from "elementary" to "advanced" levels (See Peacock 2002):

1. At an Elementary level students engage in closed inquiry with predetermined question/issue and criteria
2. At a Proficient level students engage in open enquiry, within structured guidelines
3. At an Advanced level students engage in open inquiry within self-determined guidelines.

The UTAS Framework, as does the Continuum, takes as its starting point the Standards of the *Australian and New Zealand Information Literacy Framework: principles, standards and practice* (Bundy 2004). The Information Literacy person


1. Recognises the need for information and determines the nature and extent of the information needed
2. Finds needed information effectively and efficiently
3. Critically evaluates information and the information seeking process
4. Manages information collected or generated
5. Applies prior and new information to construct new concepts or create new understandings
6. Uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

Figure 1 shows how Standard 1 can be articulated at elementary, proficient and advanced skill levels:

1. The Elementary skills level requires the student, engaging in a closed enquiry, to recognise the purpose of inquiry by exploring information broadly and identifying key concepts. The student identifies appropriate source types, devises relevant search strategies and addresses emergent questions.
2. The Proficient skills level requires the student to ask research questions that are specific, answerable and guide the inquiry. The student determines the nature and extent of information needed based on research questions and guiding criteria.
3. The Advanced skills level requires the student to ask research questions based on experience, expertise and/or literature reviews. The student determines the nature and extent of information needed to address the open inquiry.

The UTAS Framework also links to the UTAS Graduate Attributes to ensure that Information Literacy is understood in context of the Attributes.

Standard 1: The information literate person recognises the need for information and determines the nature and extent of information needed			
	Elementary	Proficient	Advanced
	Student engages in closed enquiry...	Student engages in open enquiry with structured guidelines	Student engages in open enquiry with self-determined guidelines
Std 1	Recognises the purpose of enquiry by exploring information broadly and identifying key concepts....	Asks research questions that are specific, answerable and guide the enquiry...	Asks research questions based on experience, expertise and/or literature reviews...



Information Literacy Framework

Figure 1. Information Literacy Standard 1 at varying skills levels

The Application of the UTAS Framework

Elementary skills level: Sources for Courses

In semester two 2007, UTAS will pilot the web-based learning resource, *Sources for Courses* (Fig. 2). This resource is a series of modules that address the ANZIIL Standards at an *elementary* level according to the UTAS Framework. *Sources for Courses* provides web-based content and learning activities that can be contextualized at either a faculty, discipline or unit level. This enables the learning resource to be aligned with the particular faculty's course structure and learning and teaching approaches. Fundamental to the project is collaboration between the Library and the University's Centre for Advancement and Learning (CALT). The team included librarians and a CALT educational designer.

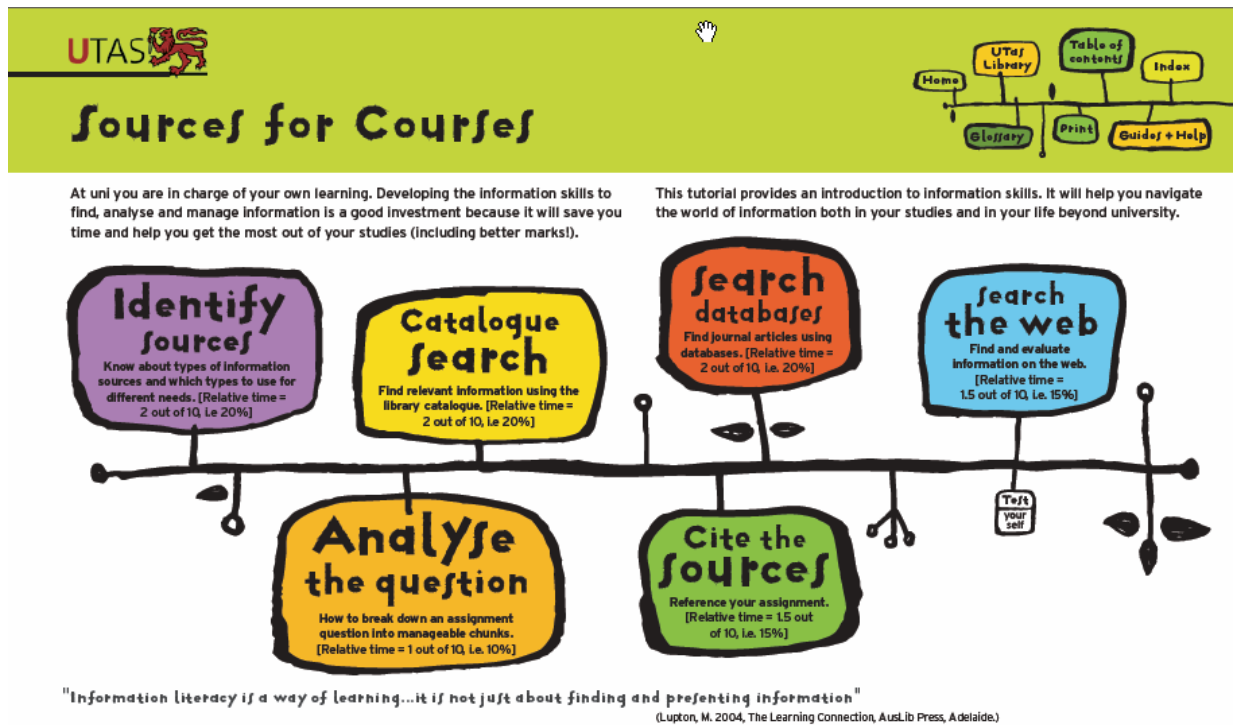


Figure 2. Web-based learning resource for contextualisation.

Sources for Courses evolved out of existing first year programs. Assessment of students' skills and the evaluation of the programs provided evidence of students development and application of Information Literacy skills that improved their learning and the quality of their essays (Alessandrini, Walpole & Dearden 2005; Dearden, Richard et al 2005).

The *Sources for Courses* project team developed a Guidance Document (Fig. 3) based on the draft UTAS Framework and the ANZIIL Standards. The Guidance Document was requested by the educational designer as a way of determining the content from the high level learning outcomes, topics, concepts, learning objectives and tasks for the learning resource.

The elementary level learning outcomes of the UTAS Framework (see Appendix) provided the high level learning outcomes for the *Sources for Courses* tutorial. The examples of each of the ANZIIL Standards provided the detail. The proficient and advanced learning outcomes of the UTAS Framework provide a broader context for what *Sources* is expected to achieve, and are both implicit and explicit about further student learning development that needs to continue throughout the degree.

AB 3.2. Defines and applies criteria for evaluating information				
1	3. The information literate person critically evaluates information and the information seeking process.			
2	Specific Learning Outcomes	Topics	Concepts	Learning Objectives
8	3.2. Defines and applies criteria for evaluating information	3.2.1 Critically evaluating information At a basic level, Tim thought important to reinforce teaching in UniStart.	Reliability; Validity; Accuracy; Authority; Timeliness; Point of view; Bias Ranking of Google	Examines and compares information from various sources to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
9		3.2.2 Analysing arguments of sources Not to be included in universal - discipline-specific	Balance and validity of views or arguments	Analyses the structure and logic of supporting arguments or methods
10		3.2.3 Motivation of authors Not to be included universal - discipline-specific	Use of information to persuade or convince	Recognises and questions prejudice, deception, or manipulation
11		3.2.4 Influence of authors background Not to be included universal - discipline-specific	Context of information creation; Cultural interpretation of information	Recognises the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information
12		3.2.5 Identifying your own cultural or personal bias Do not include - Consequential	Cultural context; Personal Bias	Recognises and understands own bias and cultural context
13				

Figure 3. Sample of the Guidance Document for *Sources for Courses* content

The Document was then used as a focus for discussion with groups of Librarians and CALT lecturers. (One unintended outcome and side-benefit of this process was a CALT lecturer grasping a new understanding of what is involved in teaching Information Literacy and subsequently including librarians in explicit and deliberate teaching in a his unit).

The end product of the Guidance Document was agreement among the major stakeholders of what should be included and excluded from the resource.

Beyond elementary skills levels: proficient and advanced

A core aim of The Continuum and the UTAS Framework is to develop students' Information Literacy to an extent where the student is working autonomously, engaging "in open enquiry within self-determined guidelines" (See Appendix). *Sources for Courses* assumes that students are operating at an 'elementary level' according to the UTAS Framework, requiring instruction and guidance. As a tool for collaboration, the UTAS Framework shows the path that students need to take through further guided activity in order to achieve advanced level skills.

As alluded to above, this has already been achieved in the Zoology major without the aid of the UTAS Framework. The embedding of Information Literacy was dependant on the enthusiasm, commitment and a clear understanding of Information Literacy by librarians and academics teaching in the major. Most of the shared understanding was achieved through an appreciation of the original Information Literacy Standards (Dearden et al 2003).

The UTAS Framework provides greater clarity and structure for an incremental approach to skills development. This clarity of purpose led to the inclusion of the UTAS Framework in the Faculty of Arts Guidelines for the Implementation of Academic Generic. The three generic skills identified in the document are analytical, communication and Information Literacy skills. In seeking a way of developing skills across the degree, the Faculty has incorporated the UTAS Framework into the Faculty's Guidelines.

Much more work needs to be done in order for the UTAS Framework to be fully implemented. In the Faculty of Arts, for example, students have a wide choice of units and majors and pathways through these majors. While some first year Arts students receive in-depth learning opportunities, some receive none at all and others, because of the units they have selected, receive repeated learning opportunities.

The full implementation of Sources for Courses, targeting all first year students will address this to an extent, and at least establish expectations of most first year students' skills.

School to University transition

The Hutchins School Pilot

The pilot transition program between UTAS and the Hutchins School provides an opportunity to explore the applicability of the UTAS Framework to cross-sector collaboration in preparing senior secondary students for university study.

For several years UTAS Librarians and Senior Secondary Teacher Librarians have met to discuss Information Literacy, compare the information environments and explore opportunities for collaboration. While some tours and workshops are undertaken each year, an agreed optimal format is yet to be established. The Hutchins pilot takes the collaboration a step further and explores possibilities of a transition program. It has also enabled us to identify syllabus requirements and student assignments that can relate to the UTAS Framework.

The pilot was undertaken with students of the senior secondary economics class. Components of the pilot included meetings between the Hutchins Economics Teacher and Librarian and UTAS Librarians, the development and refinement of workshop material by the UTAS Librarians in consultation with the Hutchins Librarian, and two workshops linked specifically with the students' assessable assignments.

The relevance of the pilot to the Hutchins students' current learning is clearly underlined in the criteria of the Tasmanian Qualifications Authority Syllabus (2006) "Criterion 1 Collect and Categorise Information" is directly related to Information Literacy. A sample of the descriptors from Criterion 1 (Fig 4) and a summary of the criterion in the Syllabus supplement (Fig 5) illustrate the parallels with the UTAS Framework.

The Syllabus documents provide an agreed starting point for the relevance of Information Literacy to students while they are in school, and as an essential skill for transition to university. This Criteria was referred to explicitly in the workshops with the students.

consider, select, and use methods to collect and categorise specific, current and detailed information	consider, select, and appropriately use methods to collect and categorise specific, current and detailed information	consider, select, and competently use methods to collect and categorise specific, current and comprehensive information
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Figure 4. Extract of Criterion 1 of the Tasmanian Qualifications Authority Senior Secondary Economics Syllabus.

This TCE generic criterion focuses on the development of students' investigative skills. Students will gather relevant information from different sources, examine the information and organise it into different categories.

Economics students should demonstrate an ability to determine the relevance of the data and information collected and discriminate in selecting and summarising information. Students should be able to evaluate the relative merits of the data in terms of its objectivity (freedom from normative judgements) and reliability (freedom from biases) and form a positive judgement on the relative merits of data sources.

Figure 5. Summary of Criterion 1 from the Tasmanian Qualifications Authority Senior Secondary Economics Syllabus supplement.

A mini-survey was undertaken at the beginning of the first workshop to establish which resources students normally use. The most popular resource accessed by students is Google, used by all ten students. Seven indicated that they use Wikipedia, 7 use the school library reference material and books, 5 use government websites and 2 use the Tasmanian State Library.

The first workshop was linked to an assignment topic that required students to assess the viability of a current major development proposal using cost benefit analysis. The workshop introduced students to the UTAS Library web page, the Economics Subject Guide, the Library Catalogue and a full-text economics-related database.

In the second workshop in July, after an interval of several months, students were required to investigate economic justice in Australia. Considerable guidance was provided with specific requirements to address sub-topics, suggested information sources and the extent of research required. This workshop focussed specifically on searching academic databases to find journal articles, and how to find the print versions on the Library shelves.

Comment from the teacher summaries the value of the pilot for the students' learning:

The boys found the introduction [in the first workshop] to data bases with peer reviewed articles useful but the topic they were studying was so contemporary and related to Hobart that most of their material was accessed from local sources. It was, however, a very useful ice breaker to UTAS. Each team had sourced at least one research article from [the University Library].

The second visit was to support their second major piece of economic analysis that they were to do individually... The topic is more one that had peer reviewed material and they found the opportunity to research from a range of resources previously unavailable as particularly valuable. I suspect that they will include many more UTAS [resources] this time than on the first occasion.

The boys rated it as highly useful and I would be keen for the program to continue (Personal communication 2007).

Our experience to date with the Hutchins pilot demonstrates an undoubted relevance for the students, shown by the correlation of the Syllabus to the UTAS Framework and by the endorsement of the Hutchins' teacher, librarian and students. Basing the learning activities on assessable assignment work, we have seen that the resources available in UTAS Library are relevant and useful for senior secondary students.

The UTAS Framework, in its simplicity, provides an accessible entry point to the detail and complexity of the ANZIL Standards and the ASLA learning matrix for student learning.

The results of the survey of resources used by students prior to the first workshop indicates that the scholarly information environment of a university is significantly different, somewhat immense, and far more complex than the environment that school students are used to working in. (The University of Queensland approach, in providing access to university-level scholarly resources, is a valuable opportunity for senior secondary students (2002)).

However, what are the implications for a transition program for senior secondary students beyond this pilot? The workshop-based activity, while manageable with low demand, is intensive in terms of preparation and facilitation, especially in customising the activity to students' assessable assignment work. Extending this approach beyond the pilot is not sustainable, and other methods of delivery need to be explored.

The UTAS Framework will be useful as a focus for extending collaboration between the University and senior secondary sectors, establishing the importance of Information Literacy transition programs while librarians in both sectors lead the development of sustainable programs.

Conclusion

In this paper we have outlined the UTAS Framework and shown how it has been used as a tool to determine the high level learning outcomes for a web learning resource at UTAS. The pathway provided by the Framework reinforces the need for a spiral curriculum approach, where skills are being learnt and practiced iteratively as students progress to a deeper understanding and ability. In this way the Framework provides an important pathway for developing students' skills to an advanced level over the course of their degree.

The UTAS Framework is a focus for collaboration, both within the university and across sectors. Based on the ANZIL Standards and The Continuum, the Framework provides a clear and easily understood statement of expectations of UTAS students. Having a clear idea of Information Literacy and how we can expect our students to progress, puts us in a good position in discussions with the senior secondary sector to collaborate on transition programs.

The Framework provides the recognition of the importance of these skills and that "Information Literacy is not a linear and once and for all" learning activity (Willison & O'Regan 2005).

Appendix. Learning Outcomes of UTAS Information Literacy Framework

Information Literacy Attributes	Elementary	Proficient	Advanced	Graduate Attributes
<i>The information literate person...</i>	<i>Engages in closed inquiry with predetermined question/issue and criteria</i>	<i>Engages in open inquiry, within structured guidelines</i>	<i>Engages in open inquiry within self-determined guidelines</i>	
1. Recognises the need for information and determines the nature and extent of the information needed	Recognises the purpose of the inquiry by exploring information broadly and identifying key concepts. Identifies appropriate source types and devises relevant search strategies. Addresses emergent questions.	Asks research questions that are specific, answerable and guide the inquiry. Determines nature and extent of information needed based on research questions and guiding criteria.	Asks research questions based on experience, expertise and/or literature reviews. Determines the nature and extent of information needed to address the open inquiry.	Knowledge Problem solving
2. Finds needed information effectively and efficiently	Finds relevant multiple source types using a search strategy.	Utilises multiple source types, including primary information when possible.	Utilises multiple source types, multiple strategy searches.	Problem solving
3. Critically evaluates information and the information-seeking process	Evaluates sources in terms of author, style and source type and recognises any information gaps. Evaluates the balance/fairness of information artefacts produced.	Evaluates sources from a critical perspective and considers if other sources should be used. Realises information is evolutionary and non-linear.	Evaluates sources from multiple critical perspectives. Analyses structure, logic, scope perspective and relevance of sources.	Problem solving
4. Manages information collected and generated	Utilises a system to organise sources and records all pertinent citation information for future reference and retrieval.	Utilises a reference storage/organisation system. Keeps references for possible future use.	Categorises kept references according to an organising framework.	Communication skills Problem solving
5. Applies prior and new information to construct new concepts or create new understandings	Develops a new line of thought that emerges from synthesis of sources. Applies understandings to fresh contexts. Asks rigorous, researchable questions based on new understandings.	Recognises the interrelatedness of concepts and develops theoretical or physical models. Uses appropriate media and forms of presentation for audience/information.	Synthesises information to develop a framework of understanding or develops new hypotheses, models or research agenda.	Knowledge
6. Uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues in the use of information	Identifies the relevance to their own inquiry of authors' positions in relation to cultural, ethical and other issues. Cites references in text, using appropriate quoting and paraphrasing. Evaluated the balance/fairness of information products.	Incorporates differing perspectives in relation to cultural, ethical and other issues, identifying the value and belief systems underlying them. Use a standard referencing system. Evaluates product according to the criteria provided.	Actively seeks out a range of perspectives, critiquing the underlying belief and value systems. Selects an appropriate referencing system. Evaluates product according to relevant criteria.	Social responsibility Global perspective
ANZIIL (2004) Standards	J. Willison & K. O'Regan (2005) Information Literacy Framework, University of Adelaide			UTAS (2002) Generic Attributes

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